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EXAMINER
SANDERS, KRIELLION ANTIONETTE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/678,598
Filing Date: October 03, 2003
Appellant(s): LAM, ROBERT C.

Charles R. Schaub
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed October 28, 2008 appealing from the Office action mailed November 29, 2007

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,856,244	Lam et al	1-1999
5,858,883	Lam et al	1-1999
6,630,416	Lam et al	10-2003

(9 a) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-5 and 7-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lam et al, US Patent No. 5,858,883 or Lam et al, US Patent No. 5,856,244 in view of Lam et al, US Patent No. 6,630,416.

Appellant's claims pertain to a friction material comprising:

A.) A porous primary layer comprising a fibrous base material impregnated with at least one curable resin and

B.) A secondary layer on the surface of the primary layer comprising a carbonaceous material and friction modifying particles in an amount of 5-35% by weight of the fibrous base material.

The primary layer may include aramid fibers, cotton fibers, carbon fibers, graphite fibers and a filler material. The secondary layer may include a mixture of carbon particles and silica particles. A process for producing the friction material is also claimed.

Lam et al, '883 discloses a non-asbestos friction material including

1. a fibrous base material comprising a primary layer of less fibrillated ***aramid*** fibers, a synthetic ***graphite*** and at least one filler material; and

2. a secondary layer of carbon particles on at least one surface of the fibrous base material for use in a non-asbestos friction material.

In certain embodiments of the patented invention, the fibrous base material is impregnated with a ***phenolic or phenolic***-based resin material, including, for example, a mixture of a ***phenolic*** resin and a silicone resin. The fibrous base material comprises a primary layer of a plurality of less fibrillated ***aramid*** fibers, and has a freeness of at least about 450 on the Canadian Standard Freeness (CSF) index.

The fibrous base material of the invention may comprise about 10 to about 50%; by weight less fibrillated ***aramid*** fiber; about 10 to about 35%, by weight, synthetic ***graphite***; about 20 to about 45%, by weight, filler material; and about 0.2% to about 20%, by weight, carbon particles. The fibrous base material may also comprise about 20% to about 40% cotton fibers.

The fibrous base material of the patented invention includes porous material ranging in mean average size from about 2.5 to about 12 microns in diameter.

The friction material of Lam et al has readily available air voids of at least about 50%. Example E of the invention includes a fibrous base material comprising about 25% less fibrillated ***aramid*** fibers, about 20% synthetic ***graphite,*** about 25% diatomaceous earth, and about 30% cotton fibers and is impregnated with an epoxy-***phenolic*** resin.

Lam et al also discloses various methods for forming the friction materials of the invention, wherein the fibrous base material is impregnated with the ***phenolic*** or modified ***phenolic*** resin, preferably so that the impregnating resin material comprises about 45 to about 65 parts, by weight, per 100 parts, by weight, of the friction material. After the fibrous base material has been impregnated with the resin, the impregnated fibrous base material is heated to a desired temperature for a predetermined length of time to form the friction material. The heating cures the ***phenolic*** resin at a temperature of about 300 degree. F. When other resins are present, such as a silicone resin, the heating cures the silicone resin at a temperature of about 400 degree F. Thereafter, the impregnated and cured friction material is adhered to the desired substrate by suitable means.

No patentable difference is readily ascertained between present and patented inventions. Since all parameters of Appellant's invention are disclosed by patentee, it would have been obvious, to one of ordinary skill in the art to select the components set forth in the patent and employ them within the disclosed weight ratios and in the manner described by patentee. **See col. 6, line 38 through col. 10, line 39**.

Lam et al '244 provides teachings that are cumulative to those of Lam et al, US Patent No. 5,858,883. See col. 8, line 28 through col. 12, line29. The patented invention differs from appellant's invention in that the patented invention includes a retention aid that may be a sizing agent, whereas appellant's invention does not mention a retention aid. In view of appellant's claim terminology, "comprising", such a retention aid is not prohibited in the present compositions. Appellant's invention does not provide a patentable difference over the invention of lam et al '244. Again, all parameters of appellant's invention are disclosed by patentee, it would have been obvious, to one of ordinary skill in the art, to select the components set forth in the invention of Lam et al '244 and employ them within the disclosed weight ratios and in the manner described by patentee.

Lam et al '416 discloses a fibrous base material comprising a first layer of fibrillated aramid fibers, (and optionally cotton fibers, carbon fibers, carbon particles and a filler material, such as diatomaceous earth) and a second layer of friction modifying particles. The invention further relates to a composite friction material comprising the above described fibrous base material impregnated with a phenolic resin or a phenolic based resin blend.

A secondary, or top, layer of friction modifying particles is deposited on the primary layer to form the fibrous base material. Various friction modifying particles are useful as the secondary layer on the fibrous base material. In particular, silica particles such as diatomaceous earth, celite, celatom, and/or silicon dioxide are especially useful.

The surface friction modifying particles are present at about 0.2 to about 20%, by weight, and preferably about 2-10%, by weight, and most preferably about 3-5%, by weight, of the fibrous base material.

The uniformity of the secondary layer of the friction modifying particles on the surface of fibrous base materials is achieved by using a range and size of the particles that is preferably from about 0.5 to about 80 microns, and preferably about 0.5 to about 20 microns.

In preferred embodiments, the amount of friction modifying particles on the primary layer ranges from about 0.2 to about 20%, by weight, and in certain embodiments about 2 to about to about 15%, by weight, and in certain preferred embodiments about 2 to about 5%, by weight, of the friction paper.

In preferred embodiments, the area of coverage of friction modifying particles on the primary layer surface is in the range of the about 3 to about 90% of the surface area. See col. 4, lines 11-59 and col. 5, lines 38 through col. 9, line 60.

It would have been obvious to one of ordinary skill in the art at the time of Appellant's invention to employ the silica or carbonaceous particles of either of Lam et al '883 or '244 having a particle size ranging from 0.5 to 80.0 microns as suggested by Lam et al, ‘416 because Lam et al ‘416 indicates an improvement in the three dimensional structure of the friction layers and the subsequent heat dissipation properties to be afforded the antifriction device by using silica or carbonaceous particles having said particle size range. See col. 9, lines 1-16.

It also would have been obvious to formulate the friction materials of either of Lam et al ‘883 or ‘244 wherein the secondary layer is present at an amount that is in the range of about 3 to about 90% of the surface area as suggested by Lam et al ‘416 because Lam et al ‘416 indicates improvements such as in achieving a high coefficient of friction, a smooth surface and a good shift feel to be afforded by employing a secondary layer that is present in the range of about 3 to about 90% of the surface area. See col. 9, lines 17-34.

(10 a) Response to Argument

Appellant's arguments filed in the appeal brief submitted 10/28/08 have been fully considered but they are not persuasive. Appellant argues that neither of the primary Lam et al. patents discloses a secondary layer comprising a mixture of carbonaceous material and silica friction modifying particles that is positioned on at least one surface of the primary layer as defined in Appellant’s claims. Appellant states that there is no disclosure or suggestion in the two primary patents for the specific limitations contained in the claims on appeal for a secondary layer comprising a mixture of carbonaceous material and silica friction modifying particles that is on at least one surface of the primary layer. This argument is not persuasive in view of the reference to Lam et al ‘416, which includes explicit direction to such features at col. 9, lines 1-35 as described above. .

Lam et al ‘416 indicates an improvement in the three dimensional structure of the friction layers and the subsequent heat dissipation properties to be afforded the antifriction device by using silica or carbonaceous particles having particle sizes ranging from 0.5 to 80.0 microns indicates improvements such as an achievement in a high coefficient of friction, a smooth surface and good shift feel to be afforded by employing a secondary layer that is present in the range of about 3 to about 90% of the surface area.

Appellant further states that Appellant previously filed a Terminal Disclaimer with respect to the '416 patent to address a nonstatutory obviousness type double patenting rejection, and that the Terminal Disclaimer was accepted by the Patent and Trademark Office. It is Appellant's position that in view of the Terminal Disclaimer, the '416 patent does not teach or suggest the specific limitations contained in the claims on appeal and cannot be properly applied to provide the deficiencies of the '883 and '244 patents.

Appellant is again advised that the Terminal Disclaimer is sufficient to overcome the rejection based on obviousness double patenting, but is not sufficient to withdraw the reference on additional prior art grounds, nor is the Terminal Disclaimer sufficient to negate the basic teachings of the reference concerning particle sizes and layer distribution.

(9b) Grounds of Rejection

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the Appellant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the Appellant for patent, except that an

> international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5 and 7-23 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lam et al, US Patent No. 6,630,416. Lam et al ‘416 is described in detail above. No patentable difference is readily ascertained between the present and patented claims for the reasons clearly set forth previously.

(10 b) Response to Argument

It is the Appellant's position that the '416 patent is not properly applied in this rejection. Appellant states that the Examiner stated that the claims on appeal were rejected on the grounds of nonstatutory double patenting over the '416 patent, Appellant contends that by previously rejecting the claims under a nonstatutory double patenting, the Examiner acknowledged that the '416 patent does not disclose the invention defined by the claims and that at best the invention set forth in the claims is obvious over the cited reference. It is the Appellant's position that the '416 patent does not teach the specific limitations for the mixture of carbonaceous material and silica friction modifying particles contained in the claims on appeal.

This argument is not persuasive because the obvious double patenting rejection is applicable to the invention as claimed and the reference is relied upon for what it claims. The rejection under 35 USC 103 or 102 is applicable to the invention as disclosed. The reference may be relied upon for what is fairly taught in its disclosure. The claimed invention of the ‘416 patent is not identical to that of Appellant’s instant claims, however the disclosure of the ‘416 patent meets all limitations of the instantly claimed invention.

Claims 1-5 and 7-23 are directed to an invention not patentably distinct from claims 1-27 of commonly assigned US Patent No. 6,630,416.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned Patent No. 6,630,416, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

(9 c) Grounds of Rejection

1. Claims 1-5 and 7-23 are rejected under 35 U.S.C. 103(a) as being obvious over Lam et al, US Patent No. 6,630,416.

The applied reference has a common inventor and assignee with the instant application. The applied reference has a different inventive entity. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention “by another”; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; ***or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c).*** This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l) (1) and § 706.02(l) (2).

Appellant should supply the oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104.

(10 c) Response to Argument

Appellant's arguments filed 10/28/08 have been fully considered but they are not persuasive. Appellant's arguments relative to the rejections set forth above have not been found to be persuasive. Appellant is required to establish that the reference to Lam et al, '416 was commonly owned at the time the present invention was made. Additionally Appellant's arguments that the invention described in the present claims is not an invention that is described in a patent by another are not persuasive because the '416 patent has a different inventive entity and is therefore considered to be by another. Clarification of these issues by Appellant is required.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Conclusion

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Kriellion A. Sanders/

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